AN ENORMOUS BLAST.—At the quarry belonging to T. Gill, Esq., at Millbay, there have of late been several blasts of large masses of limestone rock, for the works of the Great Western Docks. One of these took place on Saturday, in the presence of a large concourse of spectators. The hole for blasting was bored with a 5-inch bit, the largest ever used in this part of the country, as we are informed, and it occupied the men four days and four nights to make the rock fit to receive the gunpowder. The quantity of powder used was 125lbs., and the weight of rock separated about 3,000 tons. The largest stone was 14 feet long, 11 feet wide, and 9 feet thick.—*Plymouth Journal.*

PITCH AND TAR UNINFLAMMABLE.—Some satisfactory experiments, according to the *Liverpool Albion*, have taken place in Mr. Royden's yard, Baffin-street, Liverpool, with the view of testing the non-inflammability of pitch and tar, prepared in a new way by Messrs. Bagot, Boissage, and Tindel, merchants, of Bordeaux.

THE NEW PATENT GAS.—Mr. S. White has obtained a patent for preparing from water and common tar or resin what he calls "hydro carbon gas," which is said to be better and cheaper than coal gas. The apparatus required is very small and simple, and the inventor says that barracks, mansions, private dwellings, and churches are about to adopt it. The mode of generating the gas with the apparatus is thus described:—"The apparatus consists of three or more retorts placed in a stove, two of which are filled with charcoal and iron, the other with small iron chains. Water is regularly supplied, and passes into the first retorts. Hydrogen and oxide of carbon are thrown off, whilst protoxide of iron remains: the tar or resin is caused to fall on the heated chains contained in the third retort, and bicarburet of hydrogen is immediately generated. These three gases are here mixed together, perfectly pure; they are then passed into the gasometer, without any necessity of passing through any purifying vessels, and the gas is fit for immediate use."

LONDON MASONS' STRIKE.—The strike on the part of the masons employed by Mr. Trego and others who have refused to allow the discontinuance of work at four o'clock on Saturdays, still continues. A bill of indictment has been preferred against twenty-one of the men for conspiracy, and the masons, on their part, have held meetings to determine on resistance, and obtain subscriptions for the purpose. We backed the original application to the masters for the one hour on Saturdays, and were anxious that it should be granted to them wherever it was practicable, but we cannot countenance such proceedings to enforce it as have been taken, proceedings which cannot fail to prove most disastrous to the workmen if persisted in.

THE NEW WHITE PAINT: A HINT TO OPERATIVE CHEMISTS.—There seems to be a prevailing desire to give the white oxide of antimony, or argentine flowers, as the old chemists called it, a fair trial, in place of white lead. The first object will be to have it prepared with as much purity and subtlety, or in as pure and impalpable a powder, as possible. For the attainment of this end we can only refer all and sundry our readers who are desirous of trying it, but not much skilled themselves in chemical manipulation, to some operative chemist who is, *and who will consider the object in view*, and proceed accordingly. As a test and criterion of its purity, however, we would recommend our correspondents themselves, who are desirous of doing so, to throw a small bit of the metal of antimony on a clear red coal, or charcoal, without a vestige of smoke, and then to receive the beautiful snow white oxide, as it rises in vapour, on the end of a poker or the broad side of a knife. They will thus be able to judge of the skill or care of their chemist, even though ignorant of the proper mode of preparing it on a larger scale. By 'a hint to operative chemists,' we mean of course that they might profit by a few extempore experiments of their own with this material,—for the adaptation and superiority of which, however, in all respects, as a substitute for white lead, we do not mean to vouch, although we do think it well worth *more* than a mere off-hand trial with the oxide as *commonly* prepared.

TENDERS

For the restoration of the Rev. T. Dale's house in Amen-corner, partly destroyed by fire:—

Wilson	£1,396	0	0
Lidbury	1,187	0	0
Pritchard	1,184	0	0
Hanson	1,163	0	0

For Edmonton New District Church. Mr. Ellis, architect:—

	If faced with Brick.	If faced with Kentish Rag.
Bridger and Ashby	£2,948	£3,093
Patrick	2,900	3,844
Thomas Hatton	2,860	3,072

For building a Girls' School and Governess's Residence at Hammersmith. Mr. G. E. Gordon, architect:—

Bird and Son	£1,049
Samuel Cundy	1,070
Crow and Adamson	999
J. Herring	999
Chamberlain	984
T. Aldridge, jun. (accepted)	670

TO CORRESPONDENTS.

"*Spirator.*"—Smith's ashes, mixed with the lime and sand, are the best material to use for the purpose, as they increase the strength of the mortar while they serve to colour it; but as these cannot often be obtained in large quantities, lamp-black is employed.

"*Received.*"—"W. H. N.," "H. H.," "R. F.," "J. H. P.," "J. E.," "W. D.," "J. J.," "J. H.," "C. E.," "J. W—m," "H. W.," "Dædalus," "A Subscriber," "Leo" (open to public competition), "Ingénieur," "An Amateur," "Street Cleansing Company," "A. F. A.," "W. B.," "R. J. W.," "W. H.," "B. G.," "T. C.," "J. M.," "London Mechanics' Institute," "Introduction to the Study of Natural Philosophy, for the use of Beginners," by Charles Tomlinson. Weale, High Holborn. "Report of the Bristol and West of England Architectural Society." (Leech, Bristol.)

"*Books, Prices, and Addresses.*"—We have not time to point out books or find addresses.

ADVERTISEMENTS.

J. MASON begs to call the attention of the Nobility and Gentry to his superior Collection of Terrace Pieces, Garden and Pleasure Ground Vases, Flower Pots, Fountains, &c. &c. Also Architects, Surveyors, and Builders in a great variety of Performed Ornaments, for Parapets, Balconies, Terraces, and Garden Walls, Capitals, Trusses, Consoles, Chimney Shafts, and other Ornaments, &c. Casts of Arms finished in a superior manner, all at half the usual price.—25, Providence-row, Finsbury-square, from Albion Wharf, Blackfriars-bridge.

PATENT HANDRAILS WITHOUT HEADING JOINTS, now so well known and justly appreciated, being patronised by the most eminent Architects, J. MELVILLE informs Architects, Builders, and the Trade in general, that having recently erected an improved steam apparatus, which, by causing a saving of fuel, and otherwise giving greater facility to the execution of the work, he is enabled to make a reduction of 10 per cent. on his former prices. Patterns and prices forwarded to any part of the country on a reference being gained, and Architects and Builders waited on in London.—64, John-street, Fitzroy-square, London.

NEUBER'S WASHABLE WATER VARNISH.—REQUIRES no PREPARATION of SIZE. The peculiar advantages of this Varnish may be thus briefly recapitulated:—It is perfectly washable, requires no preparation whatever, is a quick dryer, emits no smell, and gives an elegant and durable polish equal to any varnish now in use. It is admirably adapted for maps, drawings, paper hangings, &c., and may be fairly considered as a discovery well worthy the patronage of the public. Price 3s. per gallon.—Manufactory, 4, Enfield-street, Broad-street, Holborn.—N.B. A liberal commission to agents.

ARCHITECTURAL ENRICHMENTS.

BIELEFELD'S IMPROVED PAPIER MACHE, which has been almost universally adopted for architectural decoration, has been patronized by her Majesty, by the Honourable Commissioners of Board of Works, by the highest of the nobility and gentry, and by the most eminent architects of the day. It has been used at the Royal palaces, at the present House of Lords, at Dublin Castle, at Dratt-n Manor, the new Conservative Club House, Grocers' Hall, &c., also at the British Museum and Pantheon Bazaar, where it has been extensively used for some years, and an inspection will sufficiently establish its superiority over every other kind of composition, both for beauty and durability. Designs prepared for the decoration of ceilings, panelling of walls, &c. A volume of enrichments, containing more than 1,000 designs of the paper mâché ornaments, with a tariff, price £1.—Works, 13, Wellington-street North, Strand.

TO ENGINEERS, MANUFACTURERS, RAILWAY AND STEAM-BOAT COMPANIES.

G. HOWE begs to call the attention of the above parties to his improved WATER-GAUGE for STEAM-BOILERS. The advantages of this Water-gauge, for which a prize medal was given by the Royal Agricultural Society of Kingston, and there working at Work, in that the glass tube, by a most simple contrivance, is completely prevented from being broken by the expansion or contraction of the boiler and the various parts of the gauge; and, should the glass tube at any time require renewing, it can be done by any one in a few minutes, with the certainty of the joints being perfectly tight.—To be had of G. HOWE, Portable Steam Engine Maker, 119, Great Guildford-street, Borough; also of Messrs. FROST, SOAKES, and VINCENT, Brandbunders, 196, Brick-lane, Whitechapel: price £6 10s. each.

IMPORTANT TO ARCHITECTS AND BUILDERS.

MESSRS. T. and C. CLARK and Co., Ironfounders, of Wolverhampton, beg respectfully to call the attention of Architects and Builders to their PATENT BRASS JOINT BUTT HINGE, neither fast, loose joint, or shrew. The above hinge are now beautifully made answer every purpose of a brass hinge at one fourth the cost of that article.

Messrs. T. and C. C. and Co. warrant every hinge to stand any test.

May be had wholesale of all merchants and factors, or at the works; and retail of all the principal ironmongers in the kingdom.

CAST-IRON PIPES, IRON WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN, Purfleet Wharf, Earl-street, City, near Blackfriars-bridge, keeps a large stock of Rain Pipes, Heads, Shoes, Elbows, &c., half round and O.G. Gutters, Socket Pipes for Water or Gas, Flanch Pipes, Sash Weights, and other Castings; Iron Work for Baker's Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent.

FLEXIBLE INDIA-RUBBER PIPES AND TUBING, For Railway Companies, Brewers, Distillers, Fire Engines, Gas Companies, Gardening and Agricultural purposes, &c.

THE PATENT VULCANIZED INDIA-RUBBER HOSE-PIPES are made to stand hot liquor, and acids without injury—do not become hard or stiff in any temperature (but are always perfectly flexible) and either require no application of oil or dressing, are particularly well adapted for locomotive engines, railway cranes, fire engines, pumps, gas, beer engines, gardens, and all purposes where a perfectly flexible pipe is required. Made all sizes, from ¼ inch bore upwards, and of any length to order. Vulcanized India rubber garden hose fitted with brass-taps, copper branch and roses complete, ready to be attached to pumps, water butts, or cisterns. Sole manufacturer, JAMES LYME HANCOCK, Gerrard-mews, Gerrard-road, London.

N.B. Vulcanized India-rubber washers of all sizes for joints of hot-water and steam pipes, and vulcanized sheet rubber any thickness for all kinds of joints, and other purposes.

IRON VERANDAHS, GATES, RAILING, STAIRCASES, &c. to any design. Hurdles, 4s. 6d. each; Painted Wire-fence, 4d. per foot. Area Gratings, Hinges, Ties, Bolts and Nuts, with all Ironwork for buildings, at the lowest prices for cash payments. Excellent Iron Bedsteads, 5s. each. GALVANIZED and CORRUGATED IRON ROOFING-GUTTERS, &c.—JOHN BULLOCK and CO., Hope Ironworks, Primrose-street, Bishopsgate.

LAP WELDED IRON TUBES.—W. H. RICHARDSON, Jun., and Co., MANUFACTURERS of every description of WROUGHT IRON TUBES for Locomotive and Marine Boilers, Gas, Steam and other purposes. PATENT TUBE WORKS, DARLASTON, STAFFORDSHIRE.

NAILS and IRONMONGERY from BIRMINGHAM.—To BUILDERS, ARCHITECTS, &c.—Nails, Locks, and every description of Builders' Ironmongery, of the best quality, supplied at the lowest Birmingham prices, by FREDERICK BLYTH, Patent Cut Nail Manufacturer and General Factor, Edmund-street, Birmingham. Lists of prices forwarded upon application.

IRON FOUNDRY, 9, Brick-lane, Old-street, St. Luke's.—J. J. JONES having made great additions to his STOCK OF PATTERNS, begs to inform the Trade, that he is now supplying them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Castle Levers, Hand Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Form Racks and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Rollers, Rasps, &c. always in stock.

IRON FOUNDRY,

109, DRURY-LANE, and CHARLES-STREET, DRURY-LANE

JOSEPH GLOVER,

Solicits the attention of the Trade to his extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, comprising cells for every purpose, either structural or ornamental.

Wheel Plates and Steam-Engine Patterns; Range Stove and Hot Plate Metal.

A stock of Rain-Water Pipes, Plain and O G Gutterings, Air Bricks, Sash Weights, &c. &c.

A very superior description of Sand Door, particularly suitable for internal work, being perfectly secure, and not unsightly.

ESTIMATES given for IRON ROOFING and every description of Ironwork, complete to specification, and the work executed with every attention to quality and dispatch.

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GALVANIZED IRON FOR ROOFING, &c.—The Galvanized Iron Company beg to direct the attention of architects, surveyors, builders, and others, to their Patent Galvanized Iron, which is peculiarly adapted for INDIAN and BUILDING PURPOSES, especially for Tropical climates, being cheaper and more durable than zinc, lead, tin, or any other metal, calculating weight and strength. The fire proof material has been used for roofing the new Houses of Parliament, shipbuilding and military sheds in her Majesty's dockyards at Deptford, Woolwich, Chatham, and Portsmouth; and at many of the principal Railway stations, gas works, &c. &c. The material is also admirably adapted for the construction of conservatories, fire proof buildings, chain and wire rope bridges, corrugated doors, shutters,&c. &c. Specimens may be seen, and every information obtained at the Offices of the Company, No. 3, Mansion House Place, City, London. Works at Millwall, Poplar, Middlesex; Broad-street, Birmingham; Cobb's Hall, near Dudley.

LIGHTNING CONDUCTORS for BUILDINGS, WITH PATENT COPPER WIRE ROPE is being daily employed for the protection of CHURCHES and other buildings from the effects of thunder. It possesses important advantages over other forms of conductors. References can be given where it has been applied for some time past to CHURCHES, PUBLIC and PRIVATE BUILDINGS, &c. &c. Its general adoption in the Naval and Mercantile Marine of the old other countries is the strongest possible EVIDENCE of its EFFICIENCY, &c.

SMITH and ENGLISH beg the attention of those engaged in building to their IMPROVED PATENT PANELLED and REVOLVING IRON SHUTTERS.—Also, the Patent Weather-tight Fastenings and Cill Bar, for French Casements, which are so much admired for their security, simplicity, cheapness and efficacy. Of the merits of their

Patent Double and Single Action Door Springs,
Improved Flooring Cramps,
Patent Wire Sash Lines, &c. &c.,

little need be said, as they are pretty generally known and appreciated.

Manufactory for Iron Suspension, Sliding, and other Doors, Strong Repositories, Plain and Ornamental Railings, Gates and Columns.—Also, Metal Bashes, Shop fronts, Stall-board Plates, Brass, Steel, and other Hinges. Buildings lined upon a new, cheap, and superior plan.

Estimates given for every description of Metal-work.

SMITH and ENGLISH, 6, Princes-street, Leicester-square, London.

WARMING by means of the circulation of WARM AIR.—DERRIDGE and HEALY (in respectfully informing the public, that they are prepared to undertake the warming of churches, hot houses, &c. with a new application of the most simple and durable construction, which they can warrant to keep to order any length of time, and which is capable of effectually warming buildings of any magnitude in a most economical manner.—DERRIDGE and HEALY, 120, Fleet-street.

HOT-WATER APPARATUS.—The attention of architects, builders, and others is respectfully requested to BENJAMIN FOWLER'S superior method of heating churches and chapels, halls, mansions, conservatories, forcing and greenhouses, manufactories and warehouses, kilns, rooms for drying timber, &c., and every variety of purpose for which artificial heat is required. Within the last twenty years a few hundreds of buildings have been heated upon this plan, and the parties for whom they were executed are constantly expressing their satisfaction, also their willingness to vouch for their efficiency. An improved strength-iron boiler, which requires no brickwork, may be seen in action upon the premises.—BENJAMIN FOWLER, 65, Dorset-street, Fleet-street.

WALKER'S PATENT. — WARMING and VENTILATING WORKS, LOWER KING-STREET, MANCHESTER.

Established 1838, for the manufacture by machinery, of various descriptions of approved apparatus for warming and ventilating all kinds of buildings by STEAM, HOT-WATER, and WARM AIR, and for the economical application of heat generally to manufacturing and domestic purposes.—The proprietor having been engaged for many years in an extensive practice of the art in various parts of the kingdom, and relying it is certain and accurate data, and feeling satisfied, from the frequency of failure in warming and ventilation, that there exists a field for the operations of properly qualified persons, is prepared to undertake works of the kind, on the principle of guaranteeing any required temperature and stated amount of ventilation. Dining-rooms and stores heated, where required, up to 100 deg. Fahrenheit, and drying operations generally pursued and executed on improved principles. Having also embodied much attention to reducing the expense and simplicity nature of ventilation arrangements, he solicits public notice to the following highly useful, compact, and well-tried inventions:

Walker's Patent HEAT-BOXES, Portable SELF-FEEDING BOILERS, improved SCREW-WARMING and VENTILATING MACHINES, HOT WATER STOVES, TUBULAR and other WARM-AIR STOVES, Portable steam-Engines of useful size, with cylindrical or tubular boilers.

Competent workmen sent to any part of the country. References to numbers of public institutions, churches, nobility and gentry, architects, manufacturers, &c., throughout England, Ireland, Scotland, and Wales.